Amendments to Specification

Please amend the paragraph on page 10, beginning at line 5 as follows:

Applicants made the following biological deposits under the terms of the Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure:

Depositor Identification Reference	International Depository Designation	Date of Deposit
Methylomonas 16a	ATCC PTA 2402	August ~~21~~ 22 2000

Please amend the paragraph on page 25, beginning at line 7 as follows:

Particularly noteworthy is the high yield of the present strain. Yield is defined herein as the amount of cell mass produced per gram of carbon substrate metabolized. The present strain has shown the ability to produce greater than 0.8 and preferably greater than 1.0 grams of cell mass per gram of methane metabolized. Similarly the present strain has shown the ability to produce greater than 0.30 and preferably greater than 0.45, more preferably greater than 0.5 grams of cell mass per gram of methanol metabolized.

Please amend the paragraph on page 25, beginning at line 14 as follows:

Carbon conversion efficiency is another measure of how much carbon is assimilated into cell mass. Carbon conversion efficiency is expressed in units of g/mol methane (1 g dry wt/g methane) / g/ mol biomass. Carbon conversion efficiency is calculated assuming a biomass composition of $CH_2O_{0.5}N_{0.25}$~~$CH_2O_{0.5}N_{0.25}$~~. The present strain will have a particularly high carbon conversion efficiency where an efficiency of greater than 40 is common, an efficiency of greater than 50 is preferred, a conversion of greater than 65 is highly preferred and an efficient of greater than 70g/mol methane ~~70~~ is most preferred.

Please amend the paragraph on page 53, beginning at line 19 as follows:

Methylomonas 16a grows on the defined medium comprised of only minimal salts, a culture headspace comprised of methane in air. Methane concentrations for growth but typically are 5-50% by volume of the culture headspace. No organic additions such as yeast extract or vitamins are required to achieve growth shown in Figure 1. Figure 1 shows the growth of 16a compared to the growth of *Methylococcus capsulatus* under identical growth conditions. i.e. minimal medium with 25% methane in air as substrate. The data indicates *Methylomonas* 16a doubles every 2-2.5 h whereas *Methylococcus capsulatus* doubles every 3.5 h with methane as substrate. With methanol as substrate doubling times on methanol are 2.5-3 h for

Methylomonas 16a and 4.5-5 h for *Methylococcus capsulatus*. Cell densities are also significantly higher for *Methylomonas* 16a growing on methane. *Methylococcus capsulatus* is a widely utilized methanotroph for experimental and commercial purposes.

Please amend Table 2 on page 55 as follows:

Table 2

Characteristic	Type I	*Methylomonas* 16a	Type X	Type II
%GC	Incomplete	Incomplete	Incomplete	Complete
Ribmp Cycle	Incomplete	Incomplete	Incomplete	Complete
RuBP Carboxylase	-	-	+	+
Temp. Range	<45 °C	<42 °C	<45 °C	<40 °C
Nitrogenase	-	+	+	+
G6P dehydrogenase NADP	+	+	+	-
Isocitrate dehydrogenase NAD/NADP	+	+	-	-
Yeast Extract	-	-	-	-
Vitamins	-	-	-	-
Pigmentation	Variable	+	Variable	Variable
Nitrate assimilation	+	+	+	+